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WAY TO LIVE

POCKET HEALTH SERIES

VOL. III

WAY TO LIVE

BY

SHRI YOGENDRA

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AUTHOR OF THE SCIENTIFIC YOGA SERIES IN
12 VOLS., MEMORABILIA ETC. ETC.

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TO
MY FATHER
WHO NEVER NEEDED ANY
FORM OF CURATIVE TREAT-
MENT TILL THIS DAY EVEN
THOUGH HE IS 72 YEARS OLD

Dear Reader,

This Pocket Health Series is made up of ten little books for people who love health but hate philosophizing when it is quite possible and desirable to explain things in the most simple words.

The layman looks for imperative conclusions and a common-sense, two-feet-on-the-ground, man-to-man plan of talk and it is here given.

Shirley G. L.

PREFACE

How to keep healthy is a paradox when we come to realize the amount of unnatural conditions imposed on us under modern living. Health is an inestimable blessing and the only way to maintain it is through care of the body. Any knowledge leading to its well-being should therefore be treated as essential and should be imparted first.

The purpose of this little work is to set forth plainly the best means of developing and maintaining physical health. It contains many things you should know to keep you in good health—that good health which cannot be bought in bottles nor by money and still which stands as the first requisite of all happiness and success in life. It tells you in simple words what the international health authorities teach on subjects of such general interest as eating, drinking, breathing, bathing and the like. It tells you in a nutshell how to live properly in conformity with the Laws of Nature and the rules of personal hygiene

Preface

of the teeth, mouth, tongue, nose, throat, ear, eye, digestive organs, skin etc. The care of such organs as the respiratory apparatus, the nervous system and the sex organs etc. has been treated elaborately in the other independent volumes of this series.

Not everyone understands the technical details of personal hygiene available in authoritative and elaborate treatises. What the layman needs is an outline of the subject in an imperative sense—telling him just exactly what he should do and should not do. This work is therefore not a comprehensive review but shows certainly the right *way to live* and offers the rules, regulations, observances and restraints upon many subjects of daily interest.

It may be mentioned that in preparing this work I have consistently and unhesitatingly given the conclusions of ancient health teachers, the Yogins, and modern findings of the progressing physiological sciences instead of taking counsel of tradition or of easy compromises with accepted indulgences.

THE AUTHOR

CONTENTS

	PAGE
PREFACE	7
ILLUSTRATIONS	11

CHAPTER I. CARE OF THE BODY

Health is Man's Birthright—The Most Sacred Duty—A Disgrace to be Sick—How We Tempt Disease?—Permanent Marks of Ill Health—Death due to Lack of Resistance—Need of Elimination and Nutrition—Living Indefinitely—Daily Scheme for Care of the Body 13-21

CHAPTER II. THE TEETH, MOUTH AND TONGUE

The Healthy Teeth—Modern Foods Spoil Teeth—Need for Denticure—Main Forms of Mouth-dan-ger—Dental Caries and Pyorrhea—Diseases due to Improper Care of the Teeth and Mouth—Care of the Tongue—Practical Suggestions 22-32

CHAPTER III. THE NOSE, THROAT AND EAR

Neglected Organs of the Body—Gateway of Dis-ease — Unhealthy Nasal Passages — Various Measures of Nasal Toilet — Water-sniffing and Its

Contents

	PAGE
Advantages — Hygiene of the Throat — Infected Tonsils — Care of the Ear — Valuable Hints . . .	33-48
CHAPTER IV. THE EYE	
The Real Eye—Modern Tendency to Eye-strain—Training the Muscles of the Eye—The Nasal Gaze—The Eye-brow Gaze—The Right-shoulder Gaze—The Left-shoulder Gaze—The Sun and Moon Gazing — Eye-gymnastics — Eye-bath — Massage—General Suggestions	49-54
CHAPTER V. THE DIGESTIVE ORGANS	
The Alimentary Canal—The Stomach and Liver—Diseases of Digestion — Stomach-bath — The Chamber of Disease—Process of Self-poisoning—The Causes of Constipation — Various Forms of Constipation — Intestinal Gases — Treatment of Constipation — Changing the Intestinal Flora — Right Method of Taking an Enema — Internal Massage—Practical Colon Code	59-83
CHAPTER VI. THE SKIN	
The Functions of the Skin—Need of Skin Hygiene—Clothing—Various Baths—Use of Soap—Proper Time to Bathe—Oil Massage — Mud Packs — Shampooing and Hair Oils—Useful Hints . . .	84-93

ILLUSTRATIONS

FIGURE	PAGE
1. Cleansing the root of the tongue, showing the manner in which the fingers are to be used.	30
2. Sniffing the water from the inverted palm with the head inclined.	38
3. Enlarged and diseased tonsils.	42
4. Acute follicular tonsillitis.	42
5. A fine type of an atomizer for spraying the nose and throat.	47
6. Fixing the eyes on the tip of the nose.	51
7. Gazing on the space between the eye-brows.	52
8. The Digestive Organs of man.	61
9. The Yoga anti-gas posture which may be tried on an inclined plane.	73
10. An excellent pose for creating intra-abdominal pressure.	76
11. This knee-chest position is particularly valuable in flushing the colon.	80

WAY TO LIVE

CHAPTER I

CARE OF THE BODY

Health is Man's Birthright—The Most Sacred Duty—A Disgrace to be Sick—How We Tempt Disease?—Permanent Marks of Ill Health—Death due to Lack of Resistance—Need of Elimination and Nutrition—Living Indefinitely—Daily Scheme for the Care of the Body

Health is Man's Birthright

THERE is no exaggeration when I say that health is man's birthright—that it is just as natural to be well as to be born, and that from mere carelessness, ignorance or transgressions of hygienic laws arise most disease and tendency to disease. Sometime ago, I even advocated in my work *Memorabilia* that "A man is just as much responsible for his ill health as he is for his ill actions, and that the same should become

CARE OF THE BODY

punishable under Law." Many cases of illness, no doubt, are preventable, and Mr. Huxley rightly advises that we should look upon them as criminal. Dr. Pyle says that "Persons who treat their bodies as they please and transgress rules of personal hygiene of which they should have a definite understanding are physical sinners, and they are not only committing a crime against themselves, but often against their dependents and future generations."

The Most Sacred Duty

The mere extension of human life through personal hygiene is not only in itself an end to be desired ; but the most direct and effective means of lengthening human life are, at the same time, those that make it more livable and always add to its power and capacity for achievement.

The first and most sacred duty, therefore, of an individual consists in taking care of his own body. *It is just as easy to be well as not to be.* Emerson is right when he says that the strong receive their strength as easily as the weak get

A DISGRACE TO BE SICK

their weakness from Nature. It all depends upon the coöperation that you offer to Nature. At times, it is only a few old conventional habits that have to be changed, modified or corrected in light of the modern sciences. That some of these old traditional habits are radically wrong in many particulars and are responsible for an untold amount of harm, misery and a vast number of premature deaths has recently been ascertained by the help of medical researches.

A Disgrace to be Sick

An unhealthy or a diseased person is not only a nuisance to himself but is a drudge and a danger to the society. The world will yet see the day when it will be considered a disgrace to be sick ; but, in the meantime, humanity suffers for lack of that important knowledge—the knowledge of individual hygiene. Public hygiene may, however, be enforced, but personal and domestic hygiene has to be taught conscientiously. This can only be effectively done by educating the public through popular literature on this vital subject.

CARE OF THE BODY

How We Tempt Disease?

Nature gives us warning long before the actual trouble starts, and if one is careful in adapting preventive measures immediately, the evil that follows could be very easily avoided. It is only after the preventive resources of the system have become exhausted and the available vitality taxed beyond its limits that Nature protests against the prevailing conditions. It means that the body needs attendance. A disease is usually a warning and an outlet for Nature to adjust herself before more serious damage could be done to the internal organs. It is an opportunity to improve your habits and mode of living, if you profit by it.

When, however, the symptomatic warnings of Nature are not heeded and the objectionable mode of living continues, we find ourselves invaded by a large number of ailments that subsequently check-mates the progress of a healthy living. When we come to think, in light of our persistent carelessness and ignorance, how often we tempt disease by our irrational and unnatural

PERMANENT MARKS OF ILL HEALTH

methods of living, we *do* feel at times that we are the worst type of physical *sinner* ; and, of course, Nature has her revenge on us. Her simple punishment is disease, misery and death.

Permanent Marks of Ill Health

It is absolutely wrong to suppose that casual or non-too-serious illness overcome by treatment leaves no evil effects behind. On the contrary, it has been found that the so-called light illness certainly does impair the growth and normal functions of the internal organs by causing mal-adjustments in the natural tissue-cells which undergo changes during illness, and very often reduces, to some extent, the power of resistance against disease. A minor ailment, thus, not only keeps the door open but paves the way for a major trouble-in-waiting.

Every little sign of ill health, every trifle deviation from normal healthful living even though it may not show any immediate evil effect, does leave a permanent mark upon one's health on the debit side. Those little acts of ours

CARE OF THE BODY

which produce ill health deduct more from our years of life and complete living than anything else, and to a greater extent make life a failure and a burden instead of a benefaction and pleasure.

Death Due to Lack of Resistance

Physiologists and other eminent scientists now admit that death from old age, however, is comparatively rare; the common *cause of death is accident*, in which term they also include disease. In young age when the vitality of an individual is at its height, many a disease is overcome, but as the powers of resistance diminish with increasing years, some ailment invited unconsciously mostly through habitual indolence attacks some important organ and leaves the body unable to repel its attack. This ends the history of an individual and we call it death.

Elimination and Nutrition

“Students of metaphysics assure us that the soul survives even after death. With regard to the length of this physical life, we are presented

ELIMINATION AND NUTRITION

with authentic records of persons in Russia, China, India, Turkey and other places who have lived over two hundred and fifty years. Some of them attributed it chiefly to certain types of herbs and roots or magic creepers grown in the jungle which they accidentally happened to eat. Most, however, professed that their extraordinary long life was the result of their simple, moderate and spiritual living.

"Irrespective of these speculative claims of eternal youth, we have now at least been assured emphatically by the leading scientists that *eternal youth is quite possible*. For example, Dr. Crew experimenting upon the planarian has conclusively proved how the life of that worm has been extended to over twenty-eight times its normal length of life. This was accomplished by, what is termed, the starvation system. We have been further repeatedly told by leading medical authorities that *there are many good and bad reasons why men die, but there is no necessary reason why they must die*.

"The findings of the modern science, how-

CARE OF THE BODY

ever, may be summed up into two important items, viz., elimination and nutrition. Barring accidents, eternal youth is possible upon the hygienic purity of the whole being and the entire organism being in active movement and the circulation of blood keeping its heights of efficiency." (Cf. The report of a lecture by the author in the *Justice*, Nov. 6, 1931.)

Living Indefinitely

How this could be achieved is a debatable question, for every so-called authority upon this subject has his own say in the matter. For example, Dr. Serge Voronoff presents to us his amazing discovery in the prolongation of life which aims at preserving the noble cells, of course, through the grafting of the glands. Dr. Hirschfeld, on the other hand, has his own theory of nervous rejuvenation. Kellogg, Fisher, Fisk, Lust and others advocate natural living, while a few enthusiasts advocate Fletcherism, Cocoarianism, steam-baths and what not. Even while these fads reveal only partial

A DAILY SCHEME OF LIVING

truths, they have a common background—the two essentials of elimination and nutrition which could hardly be overlooked.

A Daily Scheme of Living

The care of the body—in the sense of keeping every organ in its healthy state—is in itself prolongation of life. Thus, instead of taking to some queer measures of longevity, it is profoundly safe to follow a course of hygienic living based upon the cleanliness of the many important organs of the body. Compared to the mere washing of the outside skin or muscular development, the internal cleanliness is probably the more important part of hygiene for on the health of the internal organs depends the length of life. Unfortunately, this aspect of personal hygiene—internal purification of the vital organs—has not yet been sufficiently investigated to formulate a practical daily scheme of living. Much of the material and purificatory processes offered in this work, have, therefore, to be drawn from the ancient teachings of Yoga.

CHAPTER II

THE TEETH, MOUTH AND TONGUE

The Healthy Teeth—Modern Foods Spoil Teeth—Need for Denticure—Main Forms of Mouth-danger—Dental Caries and Pyorrhea—Diseases due to Improper Care of the Teeth and Mouth—Care of the Tongue—Practical Suggestions

The Healthy Teeth

A HEALTHY tooth was white as new ivory when it first pushed into the world. Through ill-treatment, it ended its history with aches and pain. Teeth that secrete no poison to lower our vitality contribute much to the welfare of the whole body. Sweet breath, a healthy mouth and a wholesome appetite are part of their gift. Is it not worth a little care, to possess teeth of this quality?

MODERN FOODS SPOIL TEETH

Modern Foods Spoil Teeth

Civilized dietary, an achievement of modern living, make perfect teeth less common than they should be. This for the simple reason that it eliminates raw and crusty foodstuffs and often replaces them by either too hot or too cold drinks and soft foods. Again, too much of meat and lack of fresh fruits also add to the misery of the teeth. The decomposing minute food-atoms that lodge into the crevices and cling to the teeth are a real menace and, if scrupulous cleansing is not followed, the mischief begins which ends the history of a healthy tooth.

Need for Denticure

No healthy tooth ever decays from within, accidents apart. What it, therefore, really needs is protection against its enemies on the outside, and this consists of careful and simple cleansing. Opinions vary as to the use of toothbrush and of the type to be selected, as also the quality of dentifrice that should accompany such cleansing.

THE TEETH, MOUTH AND TONGUE

It is needless to enter into these details as one thing is certain that a *healthy tooth is a natural thing* and that the greatest care it needs is its external cleanliness.

Main Forms of Mouth-danger

The one source of infection and self-poisoning so open to all kinds of disease and especially to pus bacteria is the mouth. Infections through the mouth occur too often for the very simple reason that the mouth secretions and the surrounding mucous membranes do not possess the same protecting power as do other organs of the body. It has been recently observed that infection occurring at the extremity of the roots of a tooth, or within the tooth itself, often has a deleterious effect upon the general health.

There are two main forms of mouth-danger : (a) dental caries, a decay largely consisting of chemical process and (b) pyorrhea, also known as Riggs' disease which is an infection by pus bacteria and sometimes also by animal parasites. Both these maladies chiefly affect the teeth and

DISEASES DUE TO IMPROPER CARE

can be easily prevented if scrupulous cleanliness is observed in regard to the mouth and the teeth.

Diseases due to Improper Care

Such grave organic diseases as arthritis, endocarditis and also many other destructive diseases of the special organs, most often the eye, have their origin in the unhealthy state of the mouth and the teeth.

It is further held that even the rise and fall in the blood pressure, the serious disturbances of the blood, heart, kidneys, intestines and the joints are frequently due to mouth infections. Of greater importance is the question of mastication dependent upon the healthy teeth and mouth. Digestive troubles, unless caused by organic disturbances of the digestive organs, may often be traced to imperfect mastication. A little daily care of the teeth and mouth thus will not only act as a preventive measure against disease but will also greatly aid the activity and progress of the more important internal organs.

THE TEETH, MOUTH AND TONGUE

Care of the Tongue

The tongue is an index of internal health. When the system is overworked and needs rest, it is the tongue that refuses to admit food for it has lost taste and even the best of food could not tempt admission. The first sign of constipation, indigestion or intestinal toxemia becomes manifest through the variously coloured coatings which appear upon the tongue. The brown, yellow and otherwise coated tongue is often covered with masses of thickened, decomposing epithelium and a great variety of germs (about fifteen or so besides the pus germs—chiefly streptococci and staphylococci which are practically always present in the adult mouth) that are enabled to grow because of a state of low bodily resistance.

The foul condition of the breath speaks volumes of what may be suspected lower down and this may begin with tartar on teeth, and other decomposing material which may collect on the root of the tongue. The tongue therefore needs care as much as the teeth and mouth.

PRACTICAL SUGGESTIONS

Practical Suggestions

The gist of the whole matter is that some apparently trivial local ailment or infection about the teeth, mouth and the tongue may have the most far-reaching consequences in shortening life and this should never be permitted to persist untreated. The hygiene of these three organs consist of simple daily care that calls for no special sacrifice of time or of money. The following important suggestions will be found useful for the preservation of the teeth, keeping the mouth aseptic and the tongue clean and healthy :

1. The deformity of the teeth, which is sometimes the result of inherited peculiarities, thumb-sucking, mouth-breathing etc. is the first thing that needs attention ; and the advice of a dentist should be secured to remedy the defects. If it is caused through *mouth-breathing*, which is usually the case in 90 per cent. of people, deep and vigorous breathing exercises (suggest-

THE TEETH, MOUTH AND TONGUE

ed in Vol. II) should be practised *through the nose*.

2. The thorough cleansing of the teeth should be attended to with regularity, both in the *morning* (immediately on rising) and at *night* (before retiring). This will prevent a long delay of food on the teeth which will otherwise cause chemical or bacteriological reaction upon the dentin. Use a prophylactic toothbrush with *hard* bristles saturated with enough dentifrice to avoid contamination. Always brush from the gums towards the tips of the teeth, including both sets of gums in the same stroke, along the inner side as well as the outer side of the teeth. After use, dry it in the sunshine for half an hour. Change your brush every two months.
3. Twice a week the enamel should be rubbed smooth with a soft orange stick or a stalk of celery, the delicate shoot of a banyan-tree, a babul or a nim twig which possess astringent properties.

PRACTICAL SUGGESTIONS

4. For the production of strong teeth and good jaws, proper nutrition and exercise are the two chief requisites. Nutrition means an adequate supply of lime salts and the substance known as vitamin D. Milk fat, liver fat and cocoanut oil are rich in vitamin D. There is a minute amount in vegetables, especially in cabbage, spinach, carrots and other green vegetables. For exercise, use the teeth and jaws vigorously by eating of hard, resistant or crusty foods every day. Avoid soft food as far as possible.
5. Do not pick your teeth with sharp or pointed instruments. Toothpick may injure the gums and should, therefore, be avoided for it will make space between the teeth where there is none.
6. When absolutely required, pass the dental tape between the teeth with great care to remove foreign matter.
7. Massage the gums for at least a few minutes every time you brush your teeth.

THE TEETH, MOUTH AND TONGUE

It will stimulate circulation in these parts.

8. Scrape the tongue, preferably with a blunt but evenly-edged tongue-scraper.



Fig. 1

Cleansing the root of the tongue, showing the position of fingers and the manner in which they are to be used.

What is even more important than the mere tongue-scraping is the cleansing of the base of the tongue which is often the place from where bad breath arises (Ingals). Join together the three fingers known as the index, the middle and the ring finger, put them into the throat, and rub well on the surface and root of the tongue

till it is properly cleansed. For guidance, see Fig. 1.

9. Follow this with a mouth-wash. Also

PRACTICAL SUGGESTIONS

make a habit of gargling the mouth with plenty of water *after each meal*. Close the mouth and push the contents (water) back and forth five to ten times before throwing it out. Thrice a week gargle the mouth with a two per cent. solution of such harmless antiseptic as borax, oil of wintergreen, tincture of myrrh, rose-water etc. Even alum and common table-salt (a teaspoonful to a pint) in lukewarm water will be quite effective. If there is tendency to foul breath, add a drop or two of oil of bitter almond. During tooth-pain and sensitiveness about the gums, an application of mercurochrome in a 2 per cent. watery solution will bring good results. Apply it by means of a small piece of absorbent cotton wound about the end of a stick, match or toothpick.

10. In the early stages of pyorrhea alveolaris, a mouth-wash composed of two drops of fluid extract of ipecac to a half-glass-full of tepid water or salt and soda in equal parts in water is very serviceable.

THE TEETH, MOUTH AND TONGUE

This should be particularly attended to at *night* for it is during that period that the most damage is wrought.

11. Do not take into your mouth anything that is either too hot or cold for besides deadening the delicate membrane it injures the teeth and spoils digestion.
12. After-meal and between-meal habits and other mouth-luxuries, viz., chewing tobacco, taking opium, eating of betel-leaves and betel-nuts, candy, chewing gums and sweets etc. should be avoided, if the natural sensitiveness of the mouth is to be preserved.
13. Smoking is positively injurious and should be avoided.
14. Remember that the citric acid and other fruit acids are possessed of very active germicidal properties. Eat a few raw and fresh fruits after the meals to keep the mouth wholesome.

CHAPTER III

THE NOSE, THROAT AND EAR

Neglected Organs of the Body—Gateway of Disease—Unhealthy Nasal Passages—Various Measures of Nasal Toilet—Water-sniffing and Its Advantages—Hygiene of the Throat—Infected Tonsils—Care of the Ear—Valuable Hints

Neglected Organs of the Body

SUFFICIENT attention has not yet been directed to the care of the nose and throat which unfortunately are wrongly supposed to be the least important organs by physiological texts, while, on the contrary, they are the main external organs that protect us from the invasion of a large army of bacteria that would otherwise find an easy entrance into the system. Every physiologist knows that these neglected organs hold

THE NOSE, THROAT AND EAR

the key to disease and longevity in so far that the first attack of dust-carrying infection finds its way through these passages.

Gateway of Disease

In terms of modern science, life is usually ended by infections or germ-diseases. The so-called constitutional diseases from unknown sources are now attributed to germ-origin. Rosenau, Billings, Charles Mayo and others have shown clearly that local infections of the nose, mouth and throat are the chief sources of serious acute and chronic diseases in many parts of the body. The skin which is a great natural protection against infection is covered over the entire surface of the body. The only passages that under normal conditions admit the entrance of germs thus are the nose and throat. A septic throat is the real gateway to disease through which the germs of most infectious diseases enter. It is really these portals that need the greatest care to fortify the body against the invasion of germs. General constitutional health

UNHEALTHY NASAL PASSAGES

measures are not enough for this purpose. Due to under-estimation of these organs in the general daily care of the body, nasal toilet and throat hygiene are quite uncommon among the civilized races. That this should have been appreciated by the ancient Yogins in India thousands of years back should prove a great revelation to the modern health teachers. It is only lately that water sniffing is becoming a fad with physical culturists and nature-cure enthusiasts. Not as a part of daily toilet but only as a preventive measure, the medical profession also has recently begun to recommend under necessity the cleansing and spraying of the nose and the gargling and painting of the throat with antiseptics.

Unhealthy Nasal Passages

Of the two gates admitting germs, the mouth is often closed but the nose is constantly active with its passages fully open. With the purest air that we inhale, we inhale also a good quantity and variety of microbes that become lodged in certain parts of these passages. Under favour-

THE NOSE, THROAT AND EAR

able conditions i. e. when the vitality of the body is low through exhaustion etc., they grow and find their way into the internal organs. The bacilli of diphtheria, pneumonia, tuberculosis, influenza etc. are all liable to infect the nose if this organ is not kept in its healthiest condition. From the medical and hygienic point alone, therefore, the importance of nasal cleansing could hardly be over-estimated. With the increase of population and traffic, it is becoming impossible to avoid dust-inhalation, crowding and dry air. With the increased sensitiveness of the skin through over-clothing, the danger of catching cold is proportionately increasing. Under these *unnatural* conditions, it is essential that nasal toilet should form a part of daily toilet duties just as cleansing of the teeth and mouth for both are equally important for the health of the body.

Various Measures of Nasal Toilet

To keep the nose in a healthy state, the one condition which is essential is that the nostrils

VARIOUS MEASURES OF NASAL TOILET

must be open for the passages of air. For such nasal obstructions as the enlarged turbinates, adenoid growth, polyps, deformities of the septum etc. the aid of a surgeon may be secured as these conditions require immediate surgical interference.

The second in importance is the casual cleansing of the nasal passages. Preference may be given to the ordinary mode of water sniffing which the Yogins term *jalaneti*. This eliminates congestion in the nasal passages and removes the accumulation of dust and mucus adhering to the delicate mucous membrane. Of the other eight distinct modes of nasal cleansing taught by the ancient teachers of hygiene, the Yogins, may be mentioned the threading of the air-passages with the aid of twisted cord-like flexible probes, the dilatation, friction and rubbing of the nostrils with a succession of probes of gradually increasing dimensions etc. These practices have been elaborated and illustrated in *Higher Practices of Yoga*; the simplified Yoga nasal toilet is detailed in *Yoga Personal Hygiene*.

THE NOSE, THROAT AND EAR

Water Sniffing and Its Advantages

The ordinary type of water sniffing is non-irritating, non-injurious and absolutely simple in operation. Try it as follows :

Just when you wash your teeth, especially in



Fig. 2

Sniffing the water, showing the right position for inverted palm with the head slightly inclined to one side to allow sniffing through one nostril.

the morning, do not forget to clean your nose also with tepid water. Take a glass full of water and put in one half a tea-spoonful of ordinary table-salt. Stir it up properly and pour some in your inverted palm and inhale the same as in suction through one nostril

at a time. See Fig. 2.

The inhaled water will either come out through the same nostril or the other, or through the mouth. Repeat this water sniffing

WATER SNIFFING AND ITS ADVANTAGES

process two or three times and practise it alternately through the other nostril. Then blow your nose of the watery discharge, taking care to close only one nostril at a time.

This *jalaneti* will loosen up the clogged mucus and dirt that has accumulated and hardened in the air-passages and which works as a nasal obstruction to the free movement of air that finally leads to a number of diseases.

Opinions are divided as to the advisability of too frequent nasal cleansing. But it has been found through experience that the mucous membrane of the nose could be made *cold-proof* by this process only and further that in course of time the danger of irritation will disappear soon the membranes become hardened by constant practice. This reduces the danger of nasal catarrh; and apart from mere purification and elimination of poisons from the nasal passages, this process of water sniffing stimulates the tiny nerve endings in these cavities. It should be done thrice at the most each time to obtain the best results.

THE NOSE, THROAT AND EAR

Hygiene of the Throat

The large percentage of sufferers from the remote but serious evil effects of mouth, nose and throat infections is only just beginning to be realized by the medical profession and may be looked upon as the greatest advance in preventive medicine during the present generation. With the aid of this knowledge of the rôle of focal infections, we are now able to avoid more serious damage to the internal organs by timely care of these neglected parts. It has taken many years for the profession to appreciate the importance of a wholesome throat and it may still take ten years more to educate the people on this subject.

A *sore throat* may be positively looked upon as a danger-signal. It may be caused through prolonged cold, infection or hot and heating foodstuffs. This condition is aggravated through disorders of the alimentary canal, especially constipation. Periodic gargling of the throat with antiseptics or with equal parts of salt and

INFECTED TONSILS

bicarb (water solution) is quite serviceable as a preventive. Hold the head up and face the sky. Open the mouth and pour the ready gargling solution, about two table-spoonfuls, in the mouth. Now do not let the contents run down into the stomach, but retain it in the throat. With a gurgle, slowly blow the water up. Repeat this five or six times.

Infected Tonsils

The disease that is becoming so common with crowding, ill-ventilation and dust-inhalation is tonsillitis. It is contagious and contact with persons suffering from it should be avoided. The enlarged tonsils and adenoids are quite common. They may be seen by looking into the open mouth. In the normal throat, we only see the folds or pillars where the tonsils are situated. But when they are enlarged or inflamed you will notice their rounded projections crimson-coloured and spotted. When in doubt about recurring cold or sore throat, just look into the back of the throat (in case of oneself, through the aid of

THE NOSE, THROAT AND EAR

a mirror held opposite) and see if you have any of these growths. Refer to Figs. 3,A and 4,A.

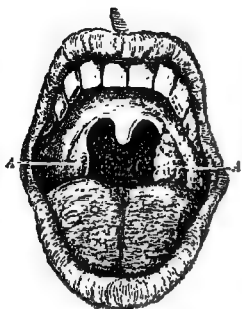


Fig. 3
A. Enlarged and diseased tonsils.

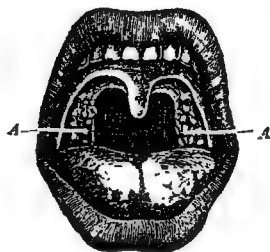


Fig. 4
A. Acute follicular tonsillitis.

The first shows the enlarged and diseased tonsils and the second acute stage of tonsillitis.

An infected tonsil is a dangerous thing to keep in the throat and should be surgically removed. In case of the children under the age of four years, care should be taken to protect them if they are merely inflamed or a bit swollen by touching the throat with the throat-paint. This may be prepared by mixing equal parts of tinc-

CARE OF THE EAR

ture ferriperchloride, glycerin and water, and may be applied with the cotton wound on the end of a stick. When however they are unquestionably infected beyond improvement, they may be removed. "The removal of the tonsils should be surgically complete," observes Dr. Winslow in his *Prevention of the Disease*, "for the tonsil clumsily removed in part is *often more dangerous* to the owner than the tonsil uncared for."

Care of the Ear

The care of the ear is simple for Nature herself has sufficiently provided for the protection of this delicate organ. The only care that is necessary is the removal of the ear-wax etc. periodically, and the avoidance of any foreign matter getting introduced through the canal. Cleansing has been found to be the only and the best requisite in abating or curing ear-conditions. Careful and vigorous syringing with hot water (105 degrees to 115 degrees F.) may be tried with great advantage when necessary. If there is a

THE NOSE, THROAT AND EAR

slight pain in the ear through congestion, a few ear-drops will soon relieve this condition. Ear-drops may be prepared at home by adding one part of phenol (carbolic acid) to twenty parts of glycerin.

Valuable Hints

Besides specific measures cited above under each head, the following important observances, if strictly carried out, will help the individual to maintain these organs in their healthy state :

1. *Never breathe through the mouth*, for mouth-breathing is extremely dangerous. It allows the entrance of dust and microbes of pneumonia, bronchitis etc. directly into the lungs. The adenoid growth and polyps are chiefly due to this faulty habit. In case, there is obstruction in the nasal passage, which is mostly the case, attend to it first. If you still have this bad habit, try to get over it by practising *deep breathing* through the nose (as suggested in *Breathing Methods*). Or keep the mouth closed, at

VALUABLE HINTS

least during the night, by tying a handkerchief *around and over it*.

- 2. Picking of the nose is another bad habit, for it leads to nose-bleeding due to finger-nail-injuries of the mucous membrane of the septum, causing small crusting ulcers. Further the hair follicles at the nasal entrance also get infected by the finger, and boils result.

③. Again snoring during sleep is a sign that the individual is wasting energy and that he is approaching either apoplexy, heart trouble, kidney congestion or some other ailment of a serious character. *A snorer is dangerous because he is a veritable fountain of germ-scatterer.* To stop this, lie upon a hard mattress on either side. *Never sleep on the back*; and to get to this habit tie the towel so that the knot comes directly in the small of the back.

4. Do not be afraid of fresh air. Make friends with the moving breezes but see that you do not expose yourself to a local

THE NOSE, THROAT AND EAR

chill for a prolonged time. A cold of any kind is usually a catarrhal disease of germ origin and should be avoided by *keeping the extremities warm* and the nose perfectly healthy.

5. Do not smoke ; but if you must, *do not blow the smoke* through your nostrils. It deadens the delicate mucous membrane and the tiny cells which work as a natural preventive against germs and warm the air to a necessary temperature before it reaches the lungs.
6. When you blow the nose, *do not* blow through one nostril at a time ; *blow through both*, and remember not to press your fingers on them.
7. When passing through a stuffed, crowded or dirty place, *breathe lightly* i. e. do not allow the air to go too deep into the lungs. This can be helped by taking in short breaths and increasing the number of respirations. If of a very short duration, and you can however hold your breath till

VALUABLE HINTS

you pass such a situation, so much the better. Then, when you are out of the danger-zone, take in a few fresh air-cock-tails.

8. An atomizer (See Fig. 5) containing a saturated solution of boric acid, with from $\frac{1}{2}$ to 1 dram of glycerin to the ounce, is a very useful article in the care of the nose

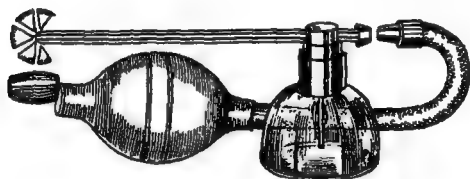


Fig. 5

A fine type of an atomizer for spraying the nose and throat.

for people who have to put up with dust-breathing and dry heated air.

9. To avoid focal infections, the hazard of kissing and other unsanitary practices viz. using the same handkerchief and drinking and other vessels used by somebody or coming in too close contact with persons

THE NOSE, THROAT AND EAR

attacked with contagious diseases should be eliminated.

10. Spicy and heating foodstuffs, rancid oil-fats and de-natured nuts quickly "catch the throat" and should be avoided.
11. Do not cover the head or the nasal passages when you are sleeping ; or dust the clothes right in front of the face.
12. At the time of sneezing or coughing move away from other people, if any are present, and see that you use a handkerchief sprinkled lightly with eucalyptus oil for such occasions.

CHAPTER IV

THE EYE

The Real Eye—Modern Tendency to Eye-strain—Training the Muscles of the Eye—The Nasal Gaze—The Eye-brow Gaze—The Right-shoulder Gaze—The Left-shoulder Gaze—The Sun and Moon Gazing—Eye-gymnastics—Eye-bath—Massage—General Suggestions

The Real Eye

It has been acknowledged by eminent physiologists that the real eye is to be found in the optic nervous system and not in the eye-ball which is merely the terminus of the system subordinate to the vital organism behind it. The care of the eye, therefore, depends largely upon the perfect nutrition, drainage and nerve supply. If these are lacking, there is really very little chance of receiving any physiological benefit from the mere exercise of ocular hygiene for the hygiene of the eye is principally constitutional.

THE EYE

Modern Tendency to Eye-strain

The modern tendency to eye-strain is largely due to the eye being constantly focussed at short distance and to the use of improper light. The cure for all reflex evils arising out of such an eye-strain is simple and consists in focussing the eye at a long distance e. g. the horizon. This should be practised for a few minutes, say, about five to ten minutes and repeated every few hours.

Training the Muscles of the Eye

The special value of any eye-exercise lies in exercising and strengthening the four important sets of muscles which pull the eye-balls upward, downward, to the right and to the left. Such exercises help to equalize the strength of these four sets of muscles which generally control the movements of the eye-balls.

The Nasal Gaze

Resort to any comfortable position of the body (of course, sitting on a chair or resting on a sofa

THE NASAL GAZE

with all the muscles of the body relaxed is more preferable) and fix the eyes on the tip of your nose. See Fig. 6. Continue this for a period of one minute or so ; then look as far upwards as



Fig. 6

Firing the eyes on the tip of the nose.

possible without raising the head. Repeat this alternately for five or ten times. Now relax and close the eyes. After a few seconds of rest, begin the next exercise.

THE EYE

The Eyebrow Gaze

With the same position, fix the eyes on the



Fig. 7

Gazing on the space between the eyebrows.

space between the eyebrows. See

Fig. 7. Keep it up for a period of two minutes or so.

Now look downward as far as possible without lowering the head. Continue raising and lowering the eyes five times or more.

Close the eyes again for rest as previously advised.

The Right-shoulder Gaze

Then, in the like manner, keeping the body erect, the neck straight and the head steady, fix the eyes on the tip of your right shoulder. Continue this for two or three minutes and relax as before.

THE SUN AND MOON GAZING

The Left-shoulder Gaze

Finally, maintaining the previous position of the body, fix the eyes on the tip of your left shoulder. Keep this for a few minutes and then rest. These two exercises for the left and right stretching of the eye-balls may also be practised jointly as follows :

Turn and stretch the eyes far to the left. Then turn and stretch them far to the right, continuing the movement back and forth from left to right and right to left alternately for a few minutes.

The Sun and Moon Gazing

The more complete scientific course of training the eyes is represented in the old teachings and practices of the Yogins. Their processes of the sun and the moon gazing are of real value to the training of the eye. These have greater physiological advantages than mere looking at the horizon recommended by physicians.

The technique consists in looking at the sun or the moon (when not covered over by the clouds) with the eyes wide open till the tears

THE EYE

begin to flow from the eyes. No unnecessary strain should be experienced while doing so.

Evidently, this exercise (sun-gazing) as an eye tonic seems to have been based upon the most remarkable discovery that the rays of the sun have not only a beneficial, but also a curative effect upon the eyes. The best time for doing these exercises is the morning and the evening—especially the time of sunrise and sunset. The moon gazing which the Yogins also follow is very simple and harmless and may be practised when the nights are clear, taking care to see that the body is protected against cold or local chill during the night.

Eye-gymnastics

For those who desire to follow vigorous eye-gymnastics for special training of the eye, the following four exercises may be found useful :

1. Raise the eyes upward obliquely to the right. Then stretch them obliquely downward to the left. Continue back and forth five to ten times.

EYE-GYMNASTICS

2. Keep the head steady. Simply look cross-eyed as though trying to see the bridge of the nose. Use both the eyes at one time and at once. It should be performed without strain and at first with only two or three repetitions.

3. Roll the eyes around in a circle, to the left upward and to the right downward. Reverse and repeat, rolling them the other way around without moving the head. Avoid strain and do it before starting other exercises.

4. Shut the eyes tightly and vigorously squeeze the eyelids together as firmly as possible. Open as wide as you can, just like staring at a minute object, and repeat the process ten to fifteen times.

The above exercises may be practised every day or every alternate day as may be convenient and especially those that may be found easy in the beginning. Remember not to tax the muscles of the eyes for it will do more harm than the good these exercises may bring. It is well to rest the eyes by closing them for a few seconds after each exercise.

THE EYE

Eye-bath

'Bathing the eyes in cold water gives that organ the necessary tone and stimulation. A few minutes after these exercises, dip the eyes in cold water (60° to 65° F.) and then twinkle them in rapid succession. Or splash the water (by taking the water in the hollow of the hands, and slowly throwing the same) in the open eyes four to five times. It improves circulation and stimulates the nervous system.

For weak eyes, an eye-bath (use the specially made eye-cup of either blue or green shade) composed of a mild solution of salt and water, about 2 per cent., or a 4 per cent. boric lotion may be recommended. Fix the eye-cup to one eye while bending and looking downward. Keep it pressed to the eye-socket and slowly raise the head and face the sky. Now try to look inside the water and make various movements of the eye.

Massage

Gentle rubbing on the outer surface of the eye-lids and the area covering the eye two or

GENERAL SUGGESTIONS

three times a day may be of very great help to weakened nerves and muscles of the eye. The stroking, vibrating and kneading movements have also a decided benevolent influence upon the blood circulation and nerve-currents, and these movements, when practised mildly, could be effectively worked upon the eye-balls.

General Suggestions

The following suggestions, if observed with due sincerity, will do much to strengthen weak eyes and keep them healthy :

1. As far as possible, do not make use of any artificial light either for reading, writing or other purposes where concentration of the vision is necessary. Avoid doing work at night.
2. The light should enter directly from the rear and not by indirect reflection either from side or opposite angles. The northern light is the most constant.
3. After every half an hour, during working hours, rest the eyes by closing them for a

THE EYE

few seconds. This will help to avoid monotony and strain of continuity.

4. When engaged in work focussing at short distance, it is well to look out towards the horizon. It helps to relieve eye-strain. Do it once in every two hours and continue it for three to four minutes.
5. The proper reading distance is about fourteen inches from the eye. Working at close range causes muscular and accommodative strain.
6. The head should be always held erect, the body leaning slightly backward, and the object held nearly on a level with the eyes.
7. The light should be on a level with the top of the head or above the head, and should illuminate over the left shoulder. Otherwise use an eye-shade.
8. Reading in cars or carriages is highly injurious because of the constant jolting which causes continuous changes in the distance between the types and the eye.

CHAPTER V

THE DIGESTIVE ORGANS

The Alimentary Canal—The Stomach and Liver—Diseases of Digestion—Stomach-bath—The Chamber of Disease—Process of Self-poisoning—The Causes of Constipation—Various Forms of Constipation—Intestinal Gases—Treatment of Constipation—Changing the Intestinal Flora—Right Method of Taking an Enema—Internal Massage—Practical Colon Code

The Alimentary Canal

COMPARATIVELY, very few persons are aware that the food which enters by the mouth and leaves by the anus has to travel a distance of about eight yards through a muscular tube called the alimentary canal, usually within eight hours in healthy persons. This journey, however, is not so easy as one supposes, for the canal is not like the ordinary water-pipe or even

THE DIGESTIVE ORGANS

a rubber-hose into and along which food-stuffs and liquids may be dropped or poured, but it is absolutely muscular and thus tightly grasps the objects passing through it before they are pushed forward by automatic snake-like muscular movements. It has been observed that this food tube is an independent and intelligent unit ever performing its functions faithfully, even after all the nerves connecting the intestine with the brain had been severed (Prof. Roger of Paris).

There are twenty-one digestive organs in man, see Fig. 8, directly or indirectly connected with the alimentary canal. Thus anything after it has been put into the mouth passes through the tube called (1) *oesophagus* and reaches the pouch (2) known as the stomach from whence it is pushed forward through its pyloric end (3) into the duodenum (4). Here it enters the (5 and 6) convolutions of the small intestines and after the main portion of absorption has been gone through, it is pressed forward into another small pouch called (7) the *cæcum* which has a

THE ALIMENTARY CANAL

tiny vermiform appendage (7*). The waste material which has now no further use is rushed

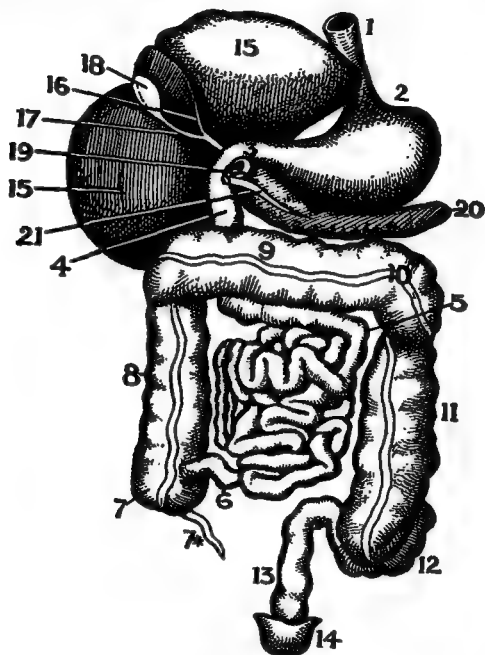


Fig. 8
The Digestive Organs of man.

through (8) the ascending colon and (9) the transverse colon, and passing the point (10)
61

THE DIGESTIVE ORGANS

called Keith's Node, the seat of reverse peristalsis, enters the descending colon (11). Here it makes rapid progress ; and after it has left the last gate of sigmoid flexure (12) and pushed into the pelvic colon (13), it is finally disposed of from the canal through the anus (14), the posterior opening of the alimentary canal through which the excrements are expelled.

Among the other accessory digestive organs may be mentioned (15) the liver, (16) the hepatic duct which carries the bile from the liver to the cystic and common bile duct, (17) the cystic duct, (18) the little gall bladder where bile is stored until needed and eventually discharged through (19) the common bile duct, and (20) the funny shaped pancreas which secretes a juice most important in the chemistry of digestion with its little duct called (21) the pancreatic duct.

The Stomach and Liver

Of these, those that need daily attention and are most likely to react easily are the stomach, liver and the intestines. The action of the saliva

THE STOMACH AND LIVER

continues in the stomach which secretes a strongly acid fluid known as the *gastric juice* which practically breaks up and liquefies the food. This mixing plant with the aid of its muscular and rhythmic slow wave-like contractions thoroughly mingles the gastric juice with the softened food, and passes the semi-fluid stuff to the small intestines, through the pylorus for absorption.

The liver is something of a refinery where laboratory work is done and some special products of digestion undergo their final delicate changes, and the elements are assorted to ease the process of repair and maintenance of the body. It does a great variety of work, besides secreting *bile* which may be regarded as an adjuvant in intestinal digestion, for it is the great detoxicator of the body.

The small intestines are really the absorbing chamber where the digestion actually takes place. And the waste materials are ultimately expelled through the aid of the large intestines.

THE DIGESTIVE ORGANS

Diseases of Digestion

Diseases of the alimentary canal are commonly divided into functional and organic. About nine-tenths of the digestive diseases are functional, and only about ten per cent. constitute the serious organic troubles. Most of the functional disorders are curable through hygienic living, but certain of the organic disturbances require surgical aid.

Indigestion and constipation are the two general terms which practically cover all the functional disorders of the alimentary canal. The first symptom is *lack of appetite* followed by acidity and catarrh of the stomach. The reflex evil is *constipation* leading to inflammation of the intestinal tract and auto-intoxication. Among the causes of indigestion may be mentioned overeating, irregularity in diet, improperly cooked or unpalatable food, unpleasant surroundings, hasty eating, drinking large quantities of water during meals, overwork, lack of exercise, nervous irritability, sexual excesses,

STOMACH-WASH

insomnia, and abuse of tobacco, tea, coffee and other stimulating drinks.

Only when habits and circumstances which favour the incidence of dyspepsia—a favourite term for indigestion, and intestinal stasis—a medical expression for constipation are continually present that organic disorders of the digestive organs make their appearance. It is therefore essential in the prevention of all digestive disorders that immediate attention is given to the most remote sign of indigestion.

Stomach-wash

The first organ to suffer from the abuse of digestion is the stomach. Each time the food passes through this organ, it leaves, besides other mal-formations, a fine coating of waste matter behind, when not thoroughly digested or eliminated from the system. These food-fermentations many times adhere to the mucous membranes of the alimentary canal and form a sort of morbid lining throughout the entire passage. If this coating is not washed off at inter-

THE DIGESTIVE ORGANS

vals, it interferes with the natural secretion and juices of the various digestive organs and in time prevents normal physiological functions of digestion. Does it not therefore stand to reason that the connecting canals and receptacles be cleansed of the fermented debris that may remain unused and unexpelled, before more food can be taken by the digestive apparatus?

The measures for such an internal cleansing for the removal of morbid coatings of waste matter, especially in the stomach is simple. The ancient Yogins do it through the various processes of *dhouti*. For a layman, however, the following three methods of stomach-wash may be found simple and effective :

1. This method is simplicity itself and consists in drinking from half to a pint of hot water, as hot as can be taken with comfort, in the morning after rising or half an hour before breakfast. It loosens up the mucous in the stomach and clears the dirt before more food is taken in.
2. The use of a stomach tube may be

STOMACH-WASH

serviceable in certain cases where straining or vomiting is likely to injure the delicate internal organs.

3. The most effective method for the stomach-bath, however, is what is termed *vamana-dhouti* in Yoga. It should be done always in the morning and on an empty stomach. Take about one to two pints of water (lukewarm, previously boiled and strained through a fine gauze) and add from one to two heaping table-spoonfuls of salt or soda bicarb. Stir the contents thoroughly and begin drinking the same. Keep on drinking till the stomach can contain it no more. Try to retain the same for sometime, say, five minutes. Then sitting in a squatting position, exhale all the breath and draw *in* the abdomen towards the spine. This will exercise the stomach through internal pressure. By now you are sure to feel nauseated and with a slight pressure on the stomach (with the palm of the right hand) and the drawing *in* of the abdomen towards

THE DIGESTIVE ORGANS

the spine, the contents will be vomited easily. If necessary, use the forefingers or a clean feather and bring the water out slowly. Depending upon the functional indisposition of the stomach, this method of cleansing may be applied periodically.

Chamber of Disease

Human body is after all a machinery, to be sure, of much delicate nature. The presence of a grain of sand in a watch will retard its movements, if not arrest them altogether. What then will happen to this intricate mechanism of the body if the waste material begin accumulating in some part of the body? Constipation is the most common digestive disorder among civilized people. It means the delay of waste matter along the alimentary canal, especially the intestines. Virchow pointed out more than half a century ago that irrespective of the cause of death, in almost every case, there is evidence of disease of the intestines. Nine-tenths of the human ills that afflict mankind have their origin in a foul

PROCESS OF SELF-POISONING

colon. Kellogg observes "that almost every chronic disease known is directly or indirectly due to the influence of bacterial poisons absorbed from the intestine." The colon, when unclean, is really the laboratory of poisons and a chamber of disease.

Process of Self-poisoning

We die of poisons created by our own body. The scientists call it auto-intoxication. The poisons are usually created in the intestines from the food-waste and its by-products together with the poisonous substances cast off by other organs of the body. In healthy normal condition, when the intestinal mucous membrane is in tact, the poisons are expelled or neutralized quickly. During constipation which condition is always preceded by proctitis and often colitis, the mucous membrane becomes inflamed and generally loses its tone. It is then incapable of fighting against the invasion of bacteria. It has also been ascertained that it is impossible to have constipation *without* intestinal toxemia. The

69

THE DIGESTIVE ORGANS

natural outcome of constipation then is self-poisoning through the most dangerous process of re-absorption. Thus the poisons which ought to have been eliminated quickly are thrown into the blood, carried to the tissues, nerves and brain ; and the health of an individual suffers.

The mucous membranes of the alimentary canal are the first to be affected by inflammation of catarrhal character ; then come the serous membranes of the body. Mal-assimilation, mal-nutrition, cell-atrophy etc. are the progressing symptoms of the invasion of filth and bacterial poisons absorbed from the intestinal tract. Some of the early symptoms of self-poisoning are headache, migraine, vertigo, dyspepsia, foul tongue and mouth, backaches, billiousness, bad odour from breath and skin, numb feeling at the lower end of the spine, muddy complexion, cold hands and feet, jaundice, neurasthenia, loss of memory, drowsy feeling, anemia, flabby obesity with pallor, fits of great mental depression, bloating of the stomach and bowels etc.

CAUSES OF CONSTIPATION

Causes of Constipation

Then, what should be considered normal bowel action? This depends upon the number of meals you take. If you eat twice a day, your bowels must move twice ; if more, your bowels must move often. Nature's plan is to have the bowels move normally after each meal and no food residues should remain in the colon longer than twenty-four hours.

The causes of constipation are many and varied. The most important are : deficient bulk, incompetency of the various valves checking the progress of intestinal contents, adhesions, redundancy of the colon, pressure on the waist interfering the movements of the diaphragm etc. The habits of life which lead to these causes are : hasty eating, excessive or deficient mastication, insufficient bulk, meat eating, monotonous diet, exclusive use of cooked food or milk diet, hot foods and drinks, insufficient diet, fasting, faulty postures, obesity, condiments and concentrated food, irregular meals, stimulating drinks, too little water or drinking it at wrong

THE DIGESTIVE ORGANS

times, irregular sleep, incorrect breathing, lack of exercise, lost "call" of Nature, hurried defecation, use of purgatives, depressing emotions, prolonged baths etc.

Various Forms of Constipation

When the waste matter remains in the colon more than twenty-four hours, the symptom may be looked upon as *simple constipation*. The evacuation in such case is not complete and a certain portion of the fæcal matters remaining behind undergo putrefaction. Most cases of chronic constipation begin with this simple form. In the *cumulative constipation* which is the common form, the lower portion of the colon is inactive, and the bowel movements occur only as the result of pressure from accumulation of the waste materials along the alimentary canal. The *latent constipation* is mostly due to the incompetency of the ileocecal valve and is more or less an advanced stage of constipation. Acute stages begin here leading to distended cæcum and diseased appendix.

INTESTINAL GASES

Intestinal Gases

The harm done to the body through constipation is generally three-fold : through mechanical, *gaseous* and absorptive processes. The putrefactive and fermentative changes of the fæcal matter when detained too long in the colon

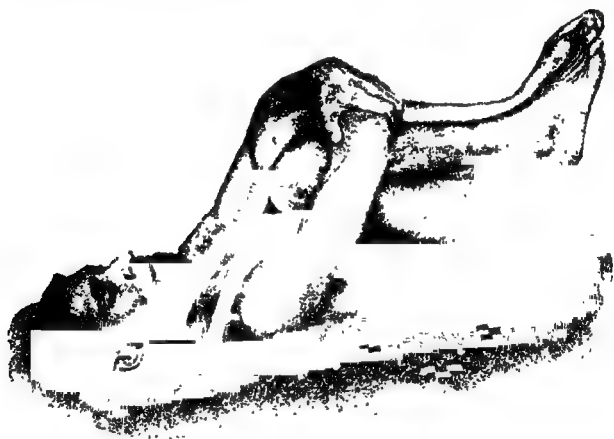


Fig. 9

The Yoga anti-gas posture which may be tried on an inclined plane in a lying down position.

give rise to most poisonous gases which if they are not immediately expelled lead to most

THE DIGESTIVE ORGANS

serious functional and organic disturbances. A change in diet and habits which cause indigestion and constipation are the only true methods of radical cure besides the practice of anti-gas postures.

Lie on your back and, after drawing the knees close to the chest press the thighs *tightly* upon the abdomen. This knee-chest position is an excellent means for the expulsion of intestinal gas. It creates internal pressure upon the contents of the abdominal viscera. Now remember to take *in* a deep breath while relaxing, and *exhale* vigorously by drawing *in* the abdomen and tightening the elbow-lock over the knee. See Fig. 9.

Treatment of Constipation

Constipation is curable and the first treatment should consist in the change of habits of life which lead to it. The most important causes of indigestion (p. 64-65) and constipation (p. 71-72) have already been outlined and they need correction. Among the other modes of treatment

TREATMENT OF CONSTIPATION

may be mentioned : approach to hygienic living, use of bulk in form of green vegetables and fruits, abdominal massage, exercise, deep breathing, use of enema and certain artificial means to aid the work of the colon viz. internal use of liquid petrolatum, agar-agar, bran and other food laxatives. Certain postures will greatly relieve constipation and should be followed daily for a few minutes.

1. Lie on the back, with arms at the sides. Raise the right leg and bring it to a right angle with the body. Breathe *in* and return to previous position. Now breathe *out* and raise the left leg. Repeat alternately with each leg and then with both together.
2. Lie on the back, with the extended legs up against a wall. Flex the right knee and bring the thigh against the abdomen, keeping the other leg extended. Bring the left leg down with the knee bent as in previous movement, extending the right one against the wall. Breathe alternately and continue this movement, extending one leg as the

THE DIGESTIVE ORGANS

other bends. Also try both the legs together, breathing *out* when flexing the knees, and breathing *in* when extending the legs.

3. Lie on the stomach and with the hands extended hold the ankles as shown in Fig. 10.

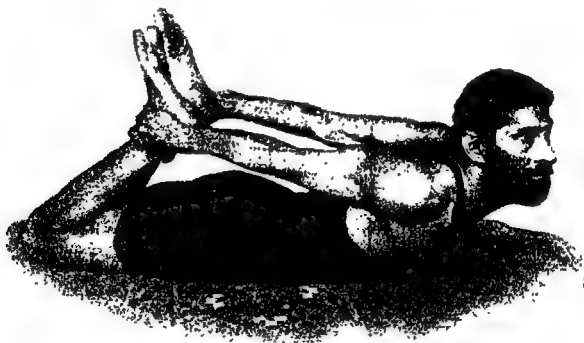


Fig. 10

An excellent pose for creating intra-abdominal pressure.

4. Maintain a head-low and hips-high position through the aid of a specially designed bed or a wall.
5. Take a squatting position with legs ten

CHANGING THE INTESTINAL FLORA

inches apart. Hold the abdomen with the palms. Exhale and bend forward, keeping on the toes. Press the abdomen *in*. Bend forward and slightly backward alternately. See that the abdominal viscera are pressed tightly with the hands.

The rhythmic exercises mentioned in the first volume of this series are also very useful to abate constipation and may suitably be incorporated in the daily course of exercises.

Changing the Intestinal Flora

Nature has provided the colon with certain types of friendly germs that protect the alimentary canal from the invasion of harmful organisms. When however through unnatural habits of living, the protective germs are superseded by the harmful bacteria, conditions leading to constipation become manifest. The friendly germs are then unable to stop the devastation that follows. In every stage of constipation, those unfriendly germs are in majority. The surest way to remedy constipation then is to

THE DIGESTIVE ORGANS

change this situation by encouraging the growth of friendly germs, the acid-formers. This replacement of the harmless instead of the harmful germs is called the change of intestinal flora.

It may be accomplished in three ways :
(a) Eliminate the diet which breeds those harmful germs. Stop eating meats and even eggs (for a few days), and also avoid vegetable foods rich in protein, such as beans, peas, cereals and other fats (also nuts). (b) The next thing is to make the bowels move more often so as to hasten the replacement. Aid may be taken of agar-agar, paraffin oil, bran and other vegetable laxatives. Do not use drugs for they are injurious to the bowels, but should an enema not work satisfactorily in early stages, a small doze of cascara sagrada (about a tea-spoonful twice a day) may be taken with advantage. It works more as an intestinal tonic than a laxative. (c) After the bowels have been made to move frequently each day, follow up by an absolutely fruit and green vegetable diet. A pint of butter-milk a day will aid the process. This may con-

RIGHT METHOD OF TAKING AN ENEMA

tinue from ten to fifteen days and then slowly revert to milk diet and in future the meatless diet.

It is no exaggeration to state that a change of the intestinal flora is productive of more good than a mere change of climate and is much less expensive and easily practicable. It costs you nothing except to change your diet and is undoubtedly more useful to the health of an individual than a trip to the hills or sea-side. It is even maintained by certain authorities that if sometimes relief is found by certain persons in a change of climate it is *because* an incidental change of their intestinal bacterial growth *happens* to occur *at the same time*.

Right Method of Taking an Enema

An ordinary low-enema is not of much value for it only cleanses a very small portion of the colon. A high-enema may be induced only through correct temperature of the water and posture of the body. The hot enema is useless except for immediate relief in special cases.

THE DIGESTIVE ORGANS

Warm enema also soon loses its efficiency. In the ordinary use of the enema, the temperature should be 70° to 80° F. It is better administered when one is in his knee-chest position, see Fig. 11. The can may be held three feet high and



Fig. 11

This knee-chest position is particularly valuable in flushing the colon.

the water allowed to pass in slowly. About three pints of water is enough to cleanse the entire colon. Move the water retained in the colon through the wave-like abdominal movements (shown elsewhere) and keep it in for about fifteen to twenty minutes. Stroking and kneading of the abdomen will be also very helpful.

INTERNAL MESSAGE

Even though an enema may not be regarded as strictly *natural*, it is quite *rational* and may be applied as often as necessity demands. Under ordinary conditions, its use may be restricted to periodic-flushing once every fortnight without running the risk of making a habit of it.

Internal Massage

Abdominal massage has been found to be of very great value in constipation. This may be secured through (a) certain breathing movements, (b) mechanical kneading and vibration, and (c) self-treatment. Reverse and rapid diaphragmatic breathing methods are very effective, besides the movements of deep inhalation and exhalation. (For details and illustrations refer to *Breathing Methods*.) Mechanotherapy however requires elaborate equipment. Self-treatment consists in applying pressure, circular movements, stroking, kneading and massage. If one is very weak, an attendant may be trained to do it skilfully.

THE DIGESTIVE ORGANS

Practical Colon Code

Among the essential rules of digestion and colon hygiene, the following may be mentioned :

1. Eat *only when* there is food-hunger, masticate thoroughly, and eat in moderation. Do not drink water during meals but an hour before or after.
2. Only food that is clean, wholesome and *palatable* should be taken. Avoid meat and stimulants.
3. Better eat thrice a day than have one heavy meal. When there is no desire for food, drink hot water and take light exercise and deep breathing. Do not eat immediately after exercise. Eat slowly and take enough time to relish your food.
4. Half the food should be of fruits and milk and the other of green vegetables and cereals. Take a glassful of buttermilk or lemon-water every day. Change the intestinal flora once every two months. Remember that only one-third of the food taken is

PRACTICAL COLON CODE

really digested and needed, the other goes to feed the doctor.

5. Make a habit to move the bowels at least three times a day, at regular hours. Concentrate and educate the colon if there is no "call", and do not miss even the slightest desire for stools. Allow sufficient time for thorough evacuation.
6. The squatting position at stool, with front of thigh against the abdomen, encourages bowel movements.
7. Walk at least one mile a day to preserve tone of the abdominal walls.

CHAPTER VI

THE SKIN

The Functions of the Skin—Need of Skin Hygiene—Clothing—Various Baths—Use of Soap—Proper Time to Bathe—Oil Massage—Mud Packs—Shampooing and Hair Oils—Useful Hints

The Functions of the Skin

OF the two layers, the superficial and the deep, it is the deep layer which is the *true* skin and functions as the organ of sensation. Apart from being an organ of sensation, however, the skin also functions in many important capacities, viz. protection, heat regulation, respiration and elimination. If not properly cared for, it may give rise to serious disturbances. The interdependence of skin to the body and *vice versa*

CLOTHING

has recently been made the subject of much study and research.

Need of Skin Hygiene

Like every other organ of elimination and absorption, the skin also needs daily attendance. Its greatest care consists in external cleanliness. But it is wrong to suppose that mere baths can improve the colour of the skin and complexion, for the hygiene of the skin also naturally depends upon food, air, exercise, sunshine, clothing and many other details of general hygiene.

Clothing

Fashion should be a secondary consideration in the choice of clothes. What is more important is its relation to health. The essentials of clothing to be considered are ventilation, power of conducting heat and capacity for absorbing moisture. Cotton, silk and linen are most serviceable. The Chinese plan of wearing a net next to the skin and over it a thin silken garment is excellent from a hygienic point of view. The

THE SKIN

silk readily absorbs perspiration while the net prevents the underclothing from adhering to the skin.

The hygiene of clothing also includes freedom from pressure, moderate warmth and cleanliness. The clothes should be always loose, thin in texture, porous, light in weight and easily washable. One set should never be worn both day and night. The underclothing need to be washed each day and dried in open sunshine. Or at least they should be aired very thoroughly over night before use. Dark coloured and brightly dyed clothes are undesirable as they obstruct the penetration of sun-rays and often the aniline colours irritate the skin. Use light colours.

Too much clothing is injurious to health and renders the body susceptible to attacks of cold. On the contrary, by wearing few clothes you can easily train the skin to bear atmospheric changes. Thus by habituating the body to cold one may easily escape the ordinary effects of exposure to wet or cold in 'catching cold'.

VARIOUS BATHS

Various Baths

Bathing is just as beneficial as it is pleasurable. Baths are either local or general and are classified according to temperature as follows : very cold (32 to 55 degrees F.), cold (55 to 65 degrees F.), cool (65 to 80 degrees F.), tepid (80 to 92 degrees F.), *neutral* (92 to 95 degrees F.), warm (90 to 98 degrees F.) and hot over 98 degrees F. For daily general bath, the neutral bath temperature is indicated. Cool and cold baths are stimulating if followed carefully either by partial bathing before general or lowering the temperature during bathing. Daily hot baths are weakening and depressing. If desired, a short hot bath may be followed by a cold one with great advantage. Pouring and shower baths are better than tub-baths for the water is constantly changing. The quantity may vary from ten to fifteen gallons, and the time from seven to twelve minutes.

After exercise, an alcohol rub, cold mitten friction, dry or cold towel bath, or the wet hand

THE SKIN

rub will prove excellent. Outdoor bathing is the best for it gives the advantage of air-bath. Sea-bathing (60 to 74 degrees F.) affords exercise while swimming and pleasure of sunlight. Swimming pools and tanks are sometimes not so safe. Infections are many times contracted from water in common use by bathers.

A half hour air and sun bath is a necessity for no living thing can flourish in a dark closed place. Either in the evening or in the morning when the sun is not strong, expose your body undressed to life-giving rays of the sun.

The Russian and Turkish bath, hip and sitz bath, electrical and other therapeutical baths have decided influence upon general health but they need not be followed until necessity arises.

Use of Soap

The use of soap is at times essential to effect a thorough cleansing. Its daily use is injurious. One need not waste his time to look out for a good soap for one toilet soap is about as good as another (better advertised) if it is a pure soap.

PROPER TIME TO BATHE

Do not use soap on the head and face ; it makes dry brittle hair and spoils complexion. When soap is used, sufficient water need be used also to wash it off thoroughly. Warm water helps to remove soap easily.

Proper Time to Bathe

The best time for bath is immediately on rising in the morning when the body is warm. This gives a feeling of freshness throughout the day. Or after the day's work, the body may be refreshed by an ablution before taking evening meals. It is always wise to wet the head before a general bath. It is positively injurious to bathe just before a meal or before three hours after. It has been found to disturb digestion. From bathing soon after eating persons have suffered from nausea, vomiting, cramps in their bowels and sometimes even death.

A bath should be avoided when one is tired or exhausted. Rest will do more good. Do not take bath before passing stool, but do it after. During exercise, the body should be allowed to

89

THE SKIN

cool off before entering bath. Cold and hot baths should be of very short duration.

Oil Massage

A dry massage is at times irritating and the rubbing is not smooth and rhythmic. Skin absorbs oil and a good oil massage adds to the elasticity of the skin and complexion. Vegetable oils are, of course, preferable, especially almond, olive and cocoanut oils. Pressure applied may be deep and the movements in harmony with the most suitable means such as kneading, stroking, friction etc. applicable to various parts of the body favouring their muscular structure. The grease should be completely eliminated after an oil massage by the use of *sika* powder or a toilet soap when bathing. A ten-minute sunbath may be tried with advantage after the application of the oil and before bathing. Oil massage is more common with Indian wrestlers after exercise. Its periodic use i. e. once every fortnight is recommended under normal conditions.

SHAMPOOING AND HAIR OILS

Mud Packs

Only recently the value of mud as a means of eliminating the wastes of the body has been realized by a certain sect of natural healers. In India this fact is a common knowledge and in many instances of snake-bites and other poisons it has been tried with advantage. Apply it only where the skin is unbroken and see that the soil used is pure and not contaminated. It is better tried in sunshine so that the body may keep sufficiently warm. I know from personal experience that mud packs, once a month, keep the skin smooth and in a wholesome condition. I rarely use soap and prefer the use of mud (specially collected from certain depths) as a skin-purifier. Large quantities of water must be used to remove the mud, after it has been applied and kept for ten to fifteen minutes.

Shampooing and Hair Oils

To keep the hair clean and free from dandruff, shampooing at intervals is very necessary. Use three parts of lemon-juice to one part of sugar.

THE SKIN

Apply it well and massage the scalp, then wash it off with bicarbonate of soda. Use warm water, and move the comb freely to secure complete cleansing. The frequency of shampooing depends upon the rapidity with which dust and dandruff accumulate. Washing the head once a fortnight or even once a week will do no harm for the natural oil will soon remove the dryness. Do not use alcohol or soap for they will make the hair dry, fluffy and coarse. Hair oils are a matter of taste but are not generally necessary.

Useful Hints

The following suggestions may be useful in care of the skin and hair :

1. Avoid dirt and dust and contact with unclean persons and clothes.
2. Beddings and clothes must be exposed to sunshine every day and changed when they are unclean.
3. Bathe daily at the fixed time and have enough of fresh air and sunshine directly on the body. Do not use dirty and impure

USEFUL HINTS

water for bathing or washing of clothes. When you use soap, take care not to leave soap on the skin.

4. Keep your nails clean and cut them close. Avoid scratching and tempering of the skin with nail or other instruments.
5. Drink three quarts of water daily, sleep in open air when conditions are favourable, avoiding chills and exposure. Take a sweating bath once a month. Remove perspiration and do not let it get absorbed in the body or dry out on the skin.
6. Use soft towel but rub it hard till there is redness on the skin. Avoid the use of lotions, powders and creams. Keep warm before and after bath.

